

In the Specification:

[0145] As will be appreciated, the telescoping structures 212t and 222t of the first sleeve portion **212** and the second sleeve portion **222** allow for squeezing of the first abutment ring **214** and the second abutment ring **224** co-axially closer to one another after positioning the pre-assembled packing cartridge **200** on a plunger **38** in the packing bore **28**. This axial squeezing is initially provided by the gland nut **32** (not shown in **Figure 4**). The gland nut initially can be tightened to the specifications of the packing elements **42**. In addition, from time to time, the gland nut can be tightened further to further squeeze the packing elements **42** in compensation for wear during operation of the pump. Preferably, these telescoping structures 212t and 222t allow for at least sufficient overlapping travel in areas **212a** and **222a** to allow for the expected crushing of packing during the operation of a plunger **38** though the packing cartridge **200**. For example, the expected crush of the packing rings may be about 0.4 inches.

[0146] Preferably, a spacer ring **245** is positioned operatively to cover the overlapping travel of inwardly exposed area **222a** of the telescoping structures 212t and 222t between the first and second sleeve portions **210** and **220**. This spacer ring **245** helps prevent seepage of fluid into any clearances between the first sleeve portion **210** and the second sleeve portion **220**. The spacer ring **245** can also act as a back-up ring for the packing rings **42**.

[0156] Preferably, a spacer ring **445** is positioned operatively to cover the overlapping travel of the telescoping structures 422t and 412t between the first and second sleeve portions **410** and **420**. This spacer ring **445** helps prevent seepage of fluid into any clearances between the first sleeve portion **410** and the second sleeve portion **420**. The spacer ring **445** can also act as a back-up ring for the packing rings **42**.

[0158] As will be appreciated, the telescoping structures 422t and 412t of the first sleeve portion **412** and the second sleeve portion **422** allow for squeezing of the first abutment ring **414** and the second abutment ring **424** co-axially closer to one another after positioning the pre-assembled packing cartridge **400** on a plunger **38** in the packing bore **28**. However, in this embodiment, the packing cartridge **400** is positioned in the packing bore **28** and tightened by a gland nut (not shown) until the second sleeve portion **422** bottoms out against a shoulder **416** of the first sleeve portion **412**. In this position, the coil spring **462** is compressed with a packing assembly positioned between the first abutment ring **414** and a second abutment ring **424**. The advantage of bottoming out the telescoping structures 422t and 412t is that it prevents over-tightening of the packing cartridge **400** in the packing bore **28**. The spring **462** maintains a pre-determined amount of axial compression on the packing rings **42** of the packing stack.